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HEALTH1.ASC

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A warning from the T.V.Q. group as to the possibility of  
Scalar / Tesla experimentation health risks.

There has been quite a lot of talk in the popular press concerning  
the possible health risks due to exposure to electromagnetic  
radiation.

While these articles concern themselves with the unavoidable  
exposure to the electromagnetic fields generated by domestic power  
wiring and radio transmissions, there is reason to believe that  
experimenters who work on Tesla coils and scalar electromagnetic  
systems may have an additional cause for concern.

The following entry was downloaded from the Usenet some time ago:

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The May/June issue of "Microwave News" contains very big news.

According to the lead article, the EPA's long-awaited report on the  
health risks of electromagnetic fields is about to be released.  
However, Dr. William Farland, director of EPA's Office of Health and  
Environmental Assessment, apparently decided a few weeks ago to  
delete the report's two most important recommendations:

that 60 Hz powerline fields be classified by EPA as "Probable  
Human Carcinogens" (like formaldehyde and creosote), and

higher frequency radio emissions and microwaves should be  
classed as "Possible Human Carcinogens" (like saccharine).

MN says Dr. Farland's justification for deleting these findings is  
that the causal mechanisms are still not understood, especially the

relationship between dose and response, even though circumstantial evidence for some degree of cancer risk can no longer be ignored.

MN editor Louis Slesin also says that Paul Brodeur will have another installment of his "Annals of Radiation" series in the July 8th issue of the New Yorker. He may comment on this latest EPA controversy.

Page 1

Here are the concluding paragraphs from the REVISED (June 1990) draft summary of the EPA staff report, as quoted in MN:

"In conclusion, the several studies showing leukemia, lymphoma and cancer of the nervous system in children exposed to magnetic fields from residential 60 Hz electrical power distribution systems, supported by similar findings in adults in several occupational studies also involving electrical power frequency exposures, show a consistent pattern of response that suggests, but does not prove, a causal link. Frequency components higher than 60 Hz cannot be ruled out as contributing factors.

Evidence from a large number of biological test systems shows that these fields induce biological effects that are consistent with several possible mechanisms of carcinogenesis. However, none of these processes has been experimentally linked to the induction of tumors, either in animals or humans, by EMFs [electromagnetic fields]. The particular aspects of exposure to the EMFs that cause these events are not known.

"In evaluating the potential for carcinogenicity of chemical agents, EPA has developed an approach that attempts to integrate all of the available information into a summary classification of the overall weight-of-evidence that the agent is carcinogenic in humans.

At this time such a characterization regarding the link between cancer and exposure to EMFs is not appropriate because the basic nature of the interaction between EMFs and biological processes is not understood.

For example, a real possibility exists that exposure to higher field strengths is actually less hazardous than exposure to low field strengths. Because of this uncertainty, it is inappropriate to make generalizations about the carcinogenicity of EMFs.

As additional studies with more definitive exposure assessment become completed, a better understanding of the nature of the

hazard will be gained. With our current understanding we can identify 60 Hz magnetic fields from power lines and perhaps other sources in the home as a possible, but not proven, cause of cancer in people. The absence of key information summarized above makes it difficult to make quantitative estimates of risk.

Such quantitative estimates are necessary before judgments about the degree of safety or hazard of a given exposure can be made. This situation indicates the need to continue to evaluate the information from ongoing studies and to further evaluate the mechanisms of carcinogenic action and the characteristics of exposure that lead to these effects."

US subscriptions to MN cost \$250/year, \$285/year elsewhere.  
Order from: Microwave News, P.O. Box 1799, Grand Central  
Station, New York, NY 10163 (212-517-2800).

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The uncertainty in linking the electromagnetic field to any possible

Page 2

carcinogenicity is understandable in light of several epidemiological studies which attempt to correlate levels of exposure and incidences of cancers and leukemia. The results do show some correlation, but not a simple one. For example, homes located next to high current power transformers do have a higher rate of incidence, but not as high as the homes located one house further away from the same transformer.

We must keep in mind that these studies are conducted by collecting data from field studies and then performing statistical analysis. Such a study may not show the cause for a given effect if there is more than one agent at work.

Although the Aharonov-Bohm effect has been proven in the lab, the fact that the magnetic field is not a fundamental field is not yet accepted or understood by the majority of scientists and engineers.

If the studies of electromagnetic exposure also included data on the relative strengths of the A-fields as well as the B-fields there may be a much stronger case for the possible carcinogenic effects.

To the best of our knowledge, no such study has been conducted to date.

Any such study would require the use of a detector which can directly measure the intensity of the magnetic vector potential, or A-field.

Such detectors do exist, but current A-field detectors are not practical for such studies.

With a practical, portable A-field detector, it would be possible to go back to the original studies and add the relative field intensity data.

With this new data, a direct cause and effect relationship may emerge.

In his masterpiece of paranoia " Fer-de-lance " T.E. Bearden shows on page 128, slide 33, a scalar wave detector. This device is described as a Bedini version of the Dea / Faretti detector. This device employs a permanent magnet with a field strength in excess of forty kilogauss.

This magnet must then be shielded to prevent external electromagnetic energy from reaching the coil above the magnet.

Such a detector is not practical, as the mass of a forty kilogauss magnet is considerable at best, and the shielding needed would have a still larger mass. It would be difficult to prove that the shielding was not saturated, and that any signal detected was not electromagnetic in origin.

Several layers of shielding would be needed to prevent magnetic coupling of external electromagnetic signals to the secondary magnetic fields set up in the shielding itself.

The operation of this detector is based on the theory that the magnet's field will be modulated by an incident scalar wave or A-

Page 3

field. It is not known to members of this group why the magnet must have such a high field strength, but we assume that this is necessary to induce a signal in the coil strong enough to be measured. The inclusion of a preamplifier into the detector design would seem to support this conclusion.

Our research group has developed a detector design which is also based upon the magnetic modulation theory, but uses a magnetic field which is considerably smaller. Because the magnetic field strength is much smaller the shielding problems are also reduced, along with the detector's mass.

This detector design has been proven to have exceptionally high sensitivity and is also directional. By using an external pickup coil in addition to the detector it is possible to positively

determine if any given detected signal is of electromagnetic origin. Placed in proximity to a pair of conductors carrying household current to a load, this detector shows an A-field to be present at twice the line frequency.

This can be understood by referring to page 123, slide 23, of " Fer-de-lance ".

While not exactly light in weight, this new detector is portable and most important, could be constructed by experimenters to measure the fields generated by whatever devices the experimenter chooses. As experimenters develop and improve their devices, they must also modify the balance of electromagnetic and scalar energy in the device.

Even a simple Tesla coil, with a single shorted turn, will produce quite large magnetic fields and their associated A-fields. As the device is improved, the potential health risks due to these fields increase.

It is our belief that the ratio of electromagnetic field strength to A-field strength is involved in determining the biological effect of electromagnetic fields, and that this accounts for the difficulties in determining the carcinogenic agent.

We are currently investigating several ways to make detailed construction plans for these detectors available to anyone interested in using them, either for their own work or for studies on the effects of electromagnetic fields on living systems.

Anyone interested should post E-mail to Harold Kobrin's account on the TESLA Section of the Colorado Mountain BBS.

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If you have comments or other information relating to such topics as this paper covers, please upload to KeelyNet or send to the Vanguard Sciences address as listed on the first page.

Thank you for your consideration, interest and support.

Jerry W. Decker.....Ron Barker.....Chuck Henderson  
Vanguard Sciences/KeelyNet

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If we can be of service, you may contact  
Jerry at (214) 324-8741 or Ron at (214) 242-9346

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